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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Osamu Ichikawa

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54856

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EXAMINER

LOBO, IAN J

ART UNIT

PAPER NUMBER

3662

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/801,440	Applicant(s) ICHIKAWA ET AL.	
	Examiner Ian J. Lobo	Art Unit 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 11-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 16-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 5, 2008 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10 and 16-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 25 and 26 are rejected as indefinite since they are dependent upon themselves.

Claims 1 and 6, as amended, are still confusing as to what the metes and bounds of applicants invention is. Specifically, in claim 1, beginning at line 8, the phrase "wave generated from a sound source inherently corresponding to a sound source position and to enable recording and processing of acoustic data" is confusing in as much as it appears that the functions of recording and processing are now being

attributed to the "sound reflecting element". Finally, the distinction between the "acoustic data" and the "delay information" needs clarification.

Also, with respect to claim 6, the preamble claims "said step (singular) of acquiring comprising". However, the discrepancy is the claim further claims additional steps.

In claim 28, there appears to be a grammatical issue that needs clarification. The amendment specifies "forming a reflecting surface as an enveloping surface designed as an envelope made from at least one spheroid formed by rotating at least one of ellipse having two focal points corresponding to the sound source and the sound collecting mean respectively". Specifically, it is unclear what the "rotating at least one" refers to. Further, it is questioned what a "source position of a reflected wave of a direct wave" is.

Finally, with respect to claims 1, 6 and 28, it is questionable whether the "sound reflecting element" is in fact a structural component or a formation of an ambiguous "spheroid". If so, it is questioned what structure is actually being claimed and if no structure is claimed, it is questioned what the reflecting element embodies.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-10 and 16-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen ('152) in view of Benesty et al ('284).

Shen discloses a system and method for sound source localization. Note that Shen discloses a sound reflecting element (see claim 4).

The difference between what is claimed in the instant independent claims 1, 6 and 28 and what is disclosed in Shen is the claims specify that "sound delay information" is utilized.

Benesty et al discloses a sound source localization system and method wherein the relative time delay between the arrival of an acoustic source signal at each of a pair of microphones is used to locate the sound source.

In view of Benesty et al, it would be obvious to one of ordinary skill in this art to modify the system and method of Shen to include time delay information for sound source localization. Claims 1, 6 and 28 are so rejected.

Dependent claims 2-06, 7-10 and 11-27 are further provided by the above noted combination of prior art.

Response to Arguments

6. Applicant's arguments filed April 10, 2008 have been fully considered but they are not persuasive. With respect to the 35 USC 112 rejections, it is noted that the arguments merely recite a redacted version of the final office action but do not recite any response to the rejections. The amendments to the claims still do not rectify the 35 USC 112 rejections.

It is pointed out that the instant claims, which have been amended numerous times, still fail to clearly delineate the structure and specific steps which applicants regard as their invention. With respect to the structure claims, it is still indefinite what structure the sound reflecting element, storage PART, and sound localization PART entail. With respect to the method claims, the steps are confusing as pertaining to what the “spheroid formed by rotating a plurality of ellipses” entails.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian J. Lobo whose telephone number is (571) 272-6974. The examiner can normally be reached on Monday - Friday, 6:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ilan J. Lobo/
Primary Examiner
Art Unit 3662